

What is claimed is:

1. Titanium with excellent impact resistance comprising the total concentration S of oxygen, nitrogen and carbon, [O], [N] and [C], between 0.04 and 0.27 mass percent, not more than 0.1 mass percent iron, and the balance comprising titanium and unavoidable impurities, and having Vickers hardness Hv* controlled by work-hardening to the range satisfying one of the following equations (1), (2) and (3):

When $0.04 \leq S \leq 0.09$ (mass percent)

$$150 \leq Hv^* \leq 400 \times S + 175 \quad (1)$$

When $0.09 \leq S \leq 0.20$ (mass percent)

$$510 \times S + 104 \leq Hv^* \leq 400 \times S + 175 \quad (2)$$

When $0.20 \leq S \leq 0.27$ (mass percent)

$$510 \times S + 104 \leq Hv^* \leq 255 \quad (3)$$

wherein S : [O] + [N] + [C] (mass percent)

Hv* : Vickers hardness in the cross-sectional area of the work-hardened product

2. A method for manufacturing the titanium with excellent impact resistance according to claim 1 in which preliminary working is applied before forming so that Vickers hardness Hv* in the cross-sectional area of the formed product satisfies one of said equations (1), (2) and (3).

3. A method for manufacturing the titanium with excellent impact resistance according to claim 1 in which the preliminary working applied before forming so that Vickers hardness Hv* in

the cross-sectional area of the formed product satisfies one of said equations (1), (2) and (3) comprises either or both of rolling with rolls applied in a direction perpendicular to the direction of hot- or cold-rolling applied prior to said preliminary working.

4. A method for manufacturing the titanium with excellent impact resistance according to claim 2 or 3 in which annealing is applied before or during forming so that Vickers hardness Hv* in the cross-sectional area of the formed product satisfies one of said equations (1), (2) and (3).

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